Work Order ID 79962

February-08-12 10:16:37 AM

79962

U/R

Item ID: D412-742-043 **Accept** *N900040100* **Setup** **Start** *NS1*

Revision ID: U/R 12 02 08 **Stop** *NS2*

Item Name: Replacement Float Skidtube

Start Date: 08/02/2012 **Start Qty:** 1.00 *1* **Cust Item ID:**

Required Date: 22/02/2012 **Req'd Qty:** 1.00 *1* **Customer:**

Reference:

Approvals: **Process Plan:** MLJ **Date:** 12/02/08 **Tooling:** ____ **Date:** ____ **Run** **Start** *NR1*

QC: ____ **Date:** ____ **SPC (Y/N):** ____ **Date:** ____ **Stop** *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp

Draw Nbr	Revision Nbr
D3391	I

100 0.00

100 DOCUMENT CONTROL

DC

Document Control

Memo 0.00

If D412-742-043 is a W/O on it's own,
Photocopy bluefile and create labels per PPP D412-742-043 CHG005

N/A

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ____________ PAR #: ______ Fault Category: ____________ NCR: Yes No DQA: _____ Date: _______

Resolution: ____________ Disposition: ____________ QA: N/C Closed: ________ Date: _______

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE

Work Order ID 79962 *79962*

February-08-12 10:16:37 AM

Item ID: D412-742-043 **Accept** *N900040100* **Setup Start** *NS1*

Revision ID: U/R

Item Name: Replacement Float Skidtube **Stop** *NS2*

Start Date: 08/02/2012 **Start Qty:** 1.00 *1* **Cust Item ID:**

Required Date: 22/02/2012 **Req'd Qty:** 1.00 *1* **Customer:**

Reference:

Run Start *NR1*

Approvals: **Process Plan:** ________ **Date:** ________ **Tooling:** ________ **Date:** ________

QC: ________ **Date:** ________ **SPC (Y/N):** ________ **Date:** ________

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110		0.00							
110 HandFinish	HandFinishing					1x	ɸ	JM	u/05/09
Hand Finishing	**Memo**	0.00							

1-Install tubes together and seal them all the way around using Sikaflex 241/291. Ensure tube ends line-up with saddle holes for proper alignment. using 7/16" "T" Pins.
A/RSikaflex-241/-291 M121221
Expiry date: 13/01

2-Install wearplates as per Dwg D3391. Ensure that plastic washers are against wearplate, then topped with the SS washer. Seal all bolts with sikaflex exept ones with inserts on inside of tube ,hand tighten only bolts with no sikaflex.

A/RSikaflex-241/-291 M121271
Expiry date: 13/01

3-Remove "T" pins once sikaflex is dry.

4-Coat all exposed hardware with LPS Procyon. Remove any excess off with MEK degreaser.
A/RLPS Procyon M114596

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ____________________ **PAR #:** _______ **Fault Category:** ________________ **NCR:** Yes No **DQA:** _____ **Date:** _________

Resolution: ____________________ **Disposition:** ____________________ **QA: N/C Closed:** __________ **Date:** _________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE

Work Order ID 79962

February-08-12 10:16:37 AM

79962

Item ID: D412-742-043 **Accept** *N900040100* **Setup Start** *NS1*

Revision ID: U/R

Item Name: Replacement Float Skidtube **Stop** *NS2*

Start Date: 08/02/2012 **Start Qty:** 1.00 *1* **Cust Item ID:**

Required Date: 22/02/2012 **Req'd Qty:** 1.00 *1* **Customer:**

Reference:

Run Start *NR1*

Stop *NR2*

Approvals: **Process Plan:** ______ **Date:** ______ **Tooling:** ______ **Date:** ______

QC: ______ **Date:** ______ **SPC (Y/N):** ______ **Date:** ______

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* QC Quality Control	QC5- Inspect part completeness to step on W/O **Memo**	0.00 0.00 08/05/02				(1)			
130 *130* Packaging Packaging	Packaging **Memo** Identify and pack for shipping as per PPP D412-742-043 Location: PPP Rev: PPP 836/0	0.00 0.00				12/5/12	(1)		
140 *140* QC Quality Control	QC21- Final Inspection - Work Order Release **Memo**	0.00 0.00					12/5/14		

MF 12.05-11

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W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

Part No: ________________ **PAR #:** ______ **Fault Category:** ______________ **NCR:** Yes No **DQA:** ____ **Date:** ________

Resolution: ________________ **Disposition:** ________________ **QA: N/C Closed:** ________ **Date:** ________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	**STEP**	**Description of NC** Section A	**Corrective Action** Section B			**Verification** Section C	**Approval** Chief Eng	**Approval** QC Inspector
			Initial Chief Eng	**Action Description** Chief Eng	**Sign & Date**			

NOTE: Date & initial all entries

Picklist Print

February-08-12 10:16:41 AM

Work Order ID: 79962 *79962*

Parent Item: D412-742-043 *D412-742-043*

Parent Item Name: Replacement Float Skidtube

Start Date: 08/02/2012 **Required Date:** 22/02/2012

Start Qty: 1.00 **Required Qty:** 1.00

Comments:
IPP Rev A 05.10.13 New Issue KJ/JLM
IPP Rev 06.02.13 ECN 773 dwg @ rev.D EC
IPP Rev:C 07-05-28 As per Rev F JLM
IPP Rev:D 07-12-04 ECN 1072 DD verified by:JLM
IPP Rev:E 08-09-08 ecn 08-510 DD verified by:EC IPP Rev:F
11.11.01 as per DSI9517 REV.B DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3391-021 *D3391-021* Fwd Tube Assembly		Manufactured	No			110	Each	0.0000	1 **	1 B81099 (x1) HL 12/05/08			
D3391-023 *D3391-023* Mid Tube Assembly		Manufactured	No			110	Each	0.0000	1 **	1 B83274 (x1) HL 12/05/08			

Location	Loc Qty	Loc Code
FP	1	
GA	-1	

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3391-025 *D3391-025* Aft Tube Assembly		Manufactured	No			110	Each	1.0000	1 **	1 B81115 (x1) HL 12/05/08			

Location	Loc Qty	Loc Code
FP001	1	
73018	1	

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ____________________ **PAR #:** _______ **Fault Category:** __________________ **NCR:** Yes No **DQA:** _____ **Date:** _________

Resolution: ____________________ **Disposition:** ____________________ **QA: N/C Closed:** __________ **Date:** _________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE

Picklist Print

February-08-12 10:16:41 AM

Work Order ID: 79962 *79962*

Parent Item: D412-742-043 *D412-742-043*

Parent Item Name: Replacement Float Skidtube

Start Date: 08/02/2012 **Required Date:** 22/02/2012

Start Qty: 1.00 **Required Qty:** 1.00

AN3C4A Purchased No 110 Each 3,795.000 24 24

AN3C4A

BOLT

** GL 12/05/08

Location		Loc Qty	Loc Code	
ST350		3795		
	117313	2		
	117688	5		
	117872	10		
	118112	16		
	118451	2		
	119749	260		
	120187	2000		x24
	120423	500		
	120521	1000		

AN3C6A Purchased No 110 Each 344.0000 10 10

AN3C6A

BOLT

** GL 12/05/08

Location		Loc Qty	Loc Code	
FP001		1		
	111982	1		
ST351		343	M 120693	
	111982	2		x10
	116419	23		
	116549	2		
	116704	12		
	117619	10		
	117688	1		
	117872	5		
	118422	13		
	119449	25		
	120423	250		

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ____________ PAR #: ______ Fault Category: ____________ NCR: Yes No DQA: _____ Date: ________

Resolution: ____________ Disposition: ____________ QA: N/C Closed: ________ Date: ________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
			Corrective Action Section B					
DATE	STEP	Description of NC Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Verification Section C	Approval Chief Eng	Approval QC Inspector

NOTE: Date & initial all entries

Work Order ID: 79962 *79962*
Parent Item: D412-742-043 *D412-742-043*
Parent Item Name: Replacement Float Skidtube

Start Date: 08/02/2012 **Required Date:** 22/02/2012
Start Qty: 1.00 **Required Qty:** 1.00

AN3C7A Purchased No 110 Each 85.0000 4 4
AN3C7A ** GA 11/05/08
BOLT

Location	Loc Qty	Loc Code	
ST351	85	M120731	x4
113149	14		
116169	1		
117313	10		
117619	12		
117688	6		
119749	42		

AN960C10L ~~NAS1149C0332 R~~ Purchased No 110 Each 0.0000 38 38
AN960C10L ✓ M121509 ** (x38) GA 11/05/08
washer

D4095-041 Manufactured No 110 Each 13.0000 1 1
D4095-041 ** GA 11/05/08
Wearplate Assembly

Location	Loc Qty	Loc Code	
FP001	13		
77438	3	B78996	x1
78938	10		

D4095-043 Manufactured No 110 Each 3.0000 1 1
D4095-043 ** GA 11/05/08
Wearplate Assembly

Location	Loc Qty	Loc Code	
FP002	3		
77437	3	B78995	x1

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W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

Part No: ____________ **PAR #:** ______ **Fault Category:** ____________ **NCR:** Yes No **DQA:** _____ **Date:** ________

Resolution: ____________ **Disposition:** ____________ **QA: N/C Closed:** ________ **Date:** ________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	**STEP**	**Description of NC** Section A	**Corrective Action** Section B			**Verification** Section C	**Approval** Chief Eng	**Approval** QC Inspector
			Initial Chief Eng	**Action Description** Chief Eng	**Sign & Date**			

NOTE: Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE

Work Order ID: 79962

79962

Parent Item: D412-742-043

D412-742-043

Parent Item Name: Replacement Float Skidtube

Start Date: 08/02/2012 **Required Date:** 22/02/2012

Start Qty: 1.00 **Required Qty:** 1.00

D4095-045	Manufactured	No	110	Each	12.0000	1	1

D4095-045

Wearplate Assembly

** JH 11/05/09

Location		Loc Qty	Loc Code	
FP001		12	B81625	VL
	77737	1		
	79042	11		

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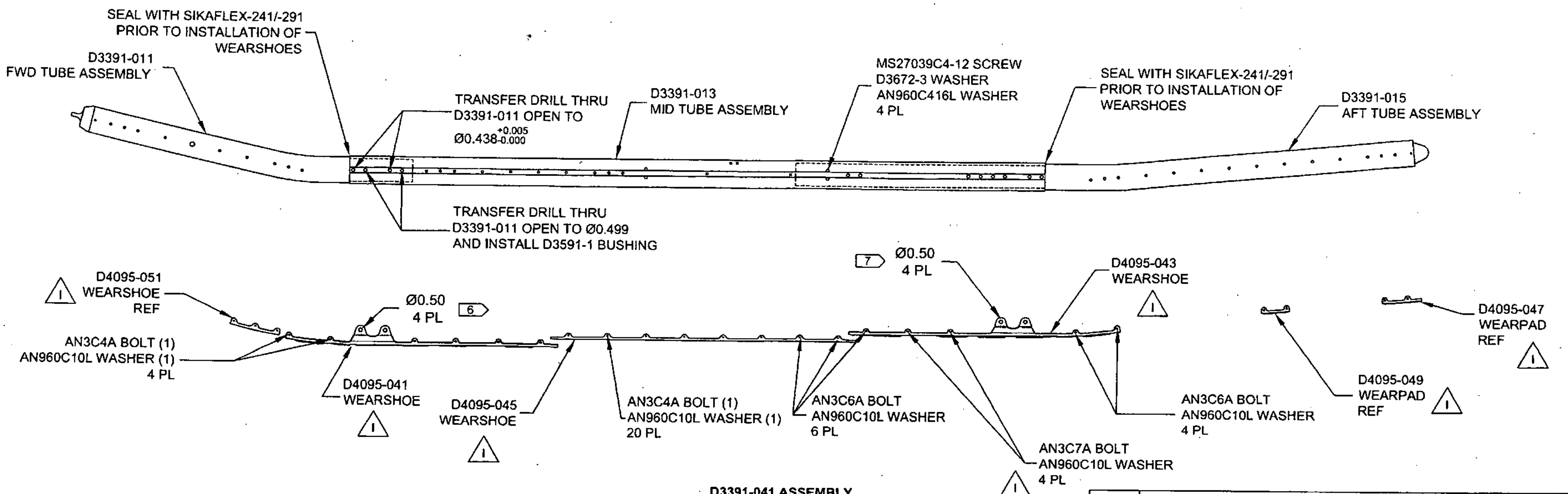
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ____________ PAR #: ______ Fault Category: ____________ NCR: Yes No DQA: _____ Date: ________

Resolution: ____________ Disposition: ____________ QA: N/C Closed: ________ Date: ________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 19962 pl 12-02-8

RELEASED 2011-11-04 ECN# 11-662

D3391-041 FLOAT SKIDTUBE ASSEMBLY PARTS LIST

QTY -041	PART NUMBER	DESCRIPTION
X	D3391-041	FLOAT SKIDTUBE ASSEMBLY
1	D3391-011	FWD TUBE ASSEMBLY
1	D3391-013	MID TUBE ASSEMBLY
1	D3391-015	AFT TUBE ASSEMBLY
2	D3591-1	BUSHING
4	D3672-3	WASHER
1	D4095-041	WEARSHOE
1	D4095-043	WEARSHOE
1	D4095-045	WEARSHOE
1	D4095-047	WEARPAD
1	D4095-049	WEARPAD
1	D4095-051	WEARSHOE
24	AN3C4A	BOLT
10	AN3C6A	BOLT
4	AN3C7A	BOLT
38	AN960C10L	WASHER
4	MS27039C4-12	SCREW
4	AN960C416L	WASHER

GENERAL NOTES

1) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
2) COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) USE DART DRILL TEMPLATE DT8217 TO LOCATE AND DRILL Ø0.297 SIZE HOLES FOR WEARSHOE INSERTS. C'BORE AS NOTED AND INSTALL INSERTS EXCEPT WHERE INDICATED.
6) FIT D4095-041 TO SKIDTUBE WITH D2571 AND D2572 SADDLES INSTALLED WITH APPROPRIATE HARDWARE AND SPACERS IN FORWARD AND AFT HOLES AND TRANSFER DRILL Ø0.50 HOLES FROM SADDLE TO D4095-041
7) FIT D4095-043 TO SKIDTUBE WITH D2571 AND D2572 SADDLES INSTALLED WITH THE APPROPRIATE HARDWARE AND SPACERS IN FORWARD AND AFT HOLES AND TRANSFER DRILL Ø0.50 HOLES FROM SADDLE TO D4095-043

REV.	DESCRIPTION	BY	DATE
I	REMOVE GASKETS AND REPLACE ALL WEARSHOES; PARTS LIST UPDATE, ZN A8-1, ZN A8-2, ZN A6-4, ZN B6-8; LPS-3 COATING REMOVED FROM NOTE 2, ZN A3-1, ZN A3-2, REMOVED INSERT AELS-1032-130, ZN B6-4, B2-4, C7-8, C3-8; REMOVED HOLES, ZN D6-4 ZN D2-4, ZN D7-8, ZN D3-8	XDF	11.10.13
H	DRAWING UPDATED TO CURRENT STANDARDS. SHT 1 PL ADDED D3591-1 BUSHING. ZN C6 Ø0.438 DIM WAS 4 PL. ADDED Ø0.499 DIM AND D3591-1 BUSHING. SHT 2 PL ADDED D3591-1 BUSHING. ZN C6 Ø0.438 DIM WAS 4 PL. ADDED Ø0.499 DIM AND D3591-1 BUSHING. (FOR FURTHER INFO SEE DSI 9364 & NCR 08-074)	AJS	08.08.20
G	REPLACE NAS INSERTS W/ AELS INSERTS SWITCH TO D3670-XXXX SPACERS FOR INSTALLING FLOAT BAGS, DWG REORGANIZED FOR CLARITY	DC	07.07.31
F	ADD SS WEARSHOE, GASKET REMOVE FWD SADDLE HOLE -011/-021	PH	07.01.18
E	CHANGE TOLERANCE, EASE MANUFACTURE	PH	06.04.25
D	UPDATE TOLERANCE, CHANGE HOLE SIZE	PH	06.01.23
C	LENGTHEN AFT EXTENSION	PH	05.09.27
B	DRAWING UPDATES	PH	05.06.10
A	NEW ISSUE	PH	05.02.07

DESIGN	PH	DART AEROSPACE USA, INC KENT, WA	
DRAWN	XDF		
CHECKED	[signature]	DRAWING NO.	REV. I
MFG. APPR.	[signature]	D3391	SHEET 1 OF 8
APPROVED	[signature]	TITLE	SCALE
DE APPR.	[signature]	412 FLOAT SKIDTUBE	NTS
DATE	11.10.13		

Dart Aerospace Ltd

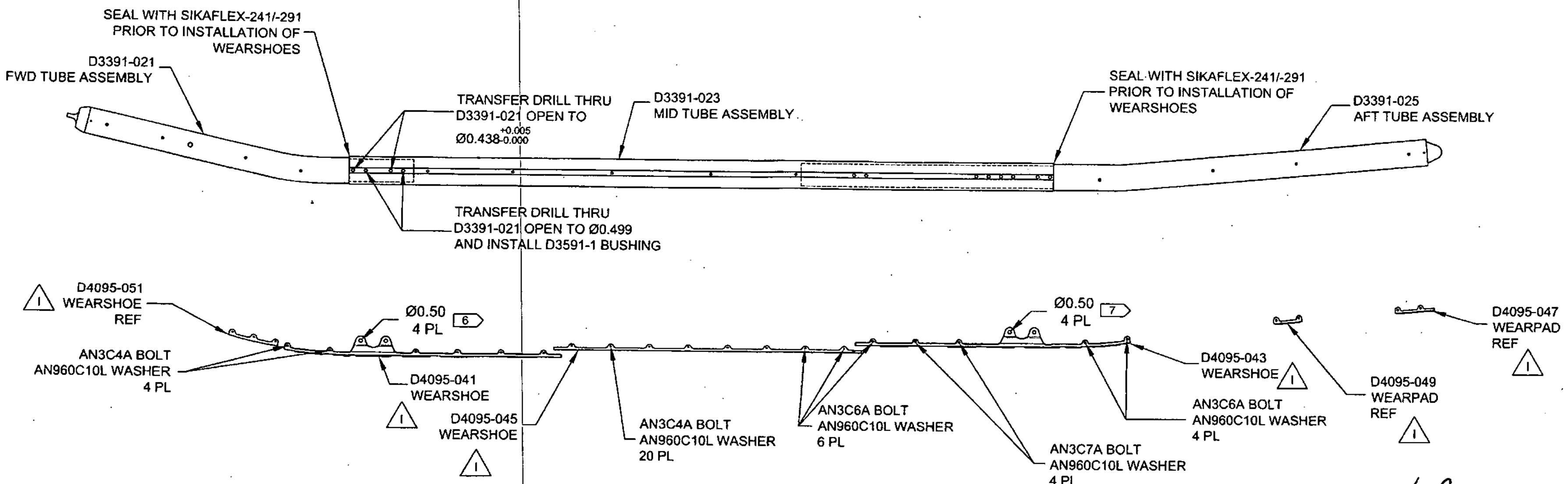
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ____________________ **PAR #:** _______ **Fault Category:** __________________ **NCR:** Yes No **DQA:** _____ **Date:** _________

Resolution: ____________________ **Disposition:** ____________________ **QA: N/C Closed:** __________ **Date:** _________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D3391-043 ASSEMBLY

19962

D3391-043 FLOAT SKIDTUBE ASSEMBLY PARTS LIST

QTY -043	PART NUMBER	DESCRIPTION
X	D3391-043	FLOAT SKIDTUBE ASSEMBLY
1	D3391-021	FWD TUBE ASSEMBLY
1	D3391-023	MID TUBE ASSEMBLY
1	D3391-025	AFT TUBE ASSEMBLY
2	D3591-1	BUSHING
1	D4095-041	WEARSHOE
1	D4095-043	WEARSHOE
1	D4095-045	WEARSHOE
1	D4095-047	WEARPAD
1	D4095-049	WEARPAD
1	D4095-051	WEARSHOE
24	AN3C4A	BOLT
10	AN3C6A	BOLT
4	AN3C7A	BOLT
38	AN960C10L	WASHER

GENERAL NOTES

1) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
2) COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) USE DART DRILL TEMPLATE DT8217 TO LOCATE AND DRILL Ø0.297 SIZE HOLES FOR WEARSHOE INSERTS. C'BORE AS NOTED AND INSTALL INSERTS EXCEPT WHERE INDICATED.
6) FIT D4095-041 TO SKIDTUBE WITH D2571 AND D2572 SADDLES INSTALLED WITH APPROPRIATE HARDWARE AND SPACERS IN FORWARD AND AFT HOLES AND TRANSFER DRILL Ø0.50 HOLES FROM SADDLE TO D4095-041
7) FIT D4095-043 TO SKIDTUBE WITH D2571 AND D2572 SADDLES INSTALLED WITH THE APPROPRIATE HARDWARE AND SPACERS IN FORWARD AND AFT HOLES AND TRANSFER DRILL Ø0.50 HOLES FROM SADDLE TO D4095-043

RELEASED 2011-11-04

DESIGN	PH	**DART AEROSPACE USA, INC** KENT, WA
DRAWN	XDF	
CHECKED		DRAWING NO. D3391 — REV. I — SHEET 2 OF 8
MFG. APPR.		
APPROVED		TITLE 412 FLOAT SKIDTUBE — SCALE NTS
DE APPR.		
DATE	11.10.13	

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

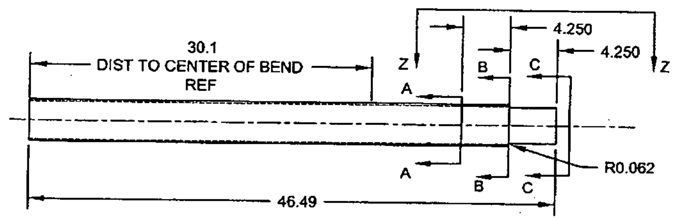
Part No: ____________________ **PAR #:** _______ **Fault Category:** ________________ **NCR:** Yes No **DQA:** _____ **Date:** _________

Resolution: ____________________ **Disposition:** ____________________ **QA: N/C Closed:** __________ **Date:** _________

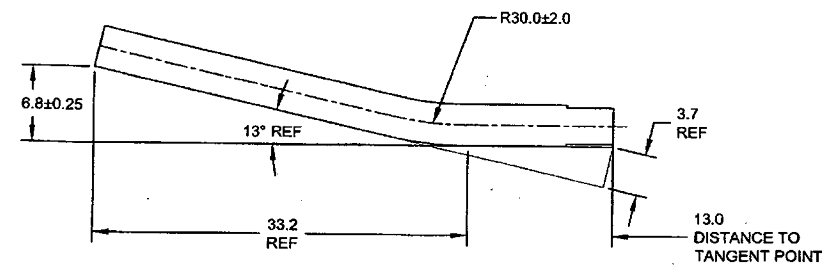
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DATE	**STEP**	**Description of NC** Section A	**Corrective Action** Section B			**Verification** Section C	**Approval** Chief Eng	**Approval** QC Inspector
			Initial Chief Eng	**Action Description** Chief Eng	**Sign & Date**			

NOTE: Date & initial all entries

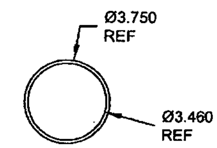
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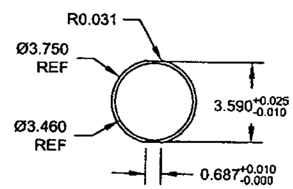
D3391-1 CUTTING DETAIL
(MAKE FROM D6013-047 SKIDTUBE MATERIAL)



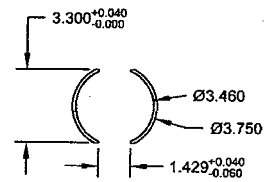
D3391-011/-021 BENDING DETAIL
(MAKE FROM D3391-1)



SECTION A-A
SCALE 2X

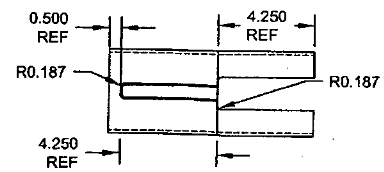


SECTION B-B
SCALE 2X



SECTION C-C
SCALE 2X

79962



VIEW Z-Z
SCALE 2X

RELEASED 2011-11-04

DESIGN	PH	DART AEROSPACE USA, INC KENT, WA
DRAWN	XDF	
CHECKED		DRAWING NO. D3391 — REV. I — SHEET 3 OF 8
MFG. APPR.		
APPROVED		TITLE 412 FLOAT SKIDTUBE — SCALE NTS
DE APPR.		
DATE	11.10.13	

Dart Aerospace Ltd

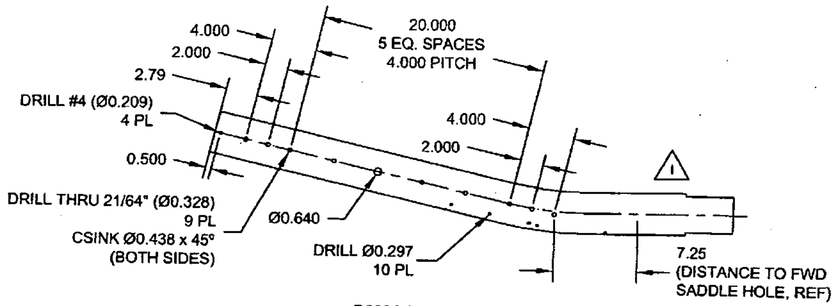
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ____________ **PAR #:** ______ **Fault Category:** ____________ **NCR:** Yes No **DQA:** _____ **Date:** ________

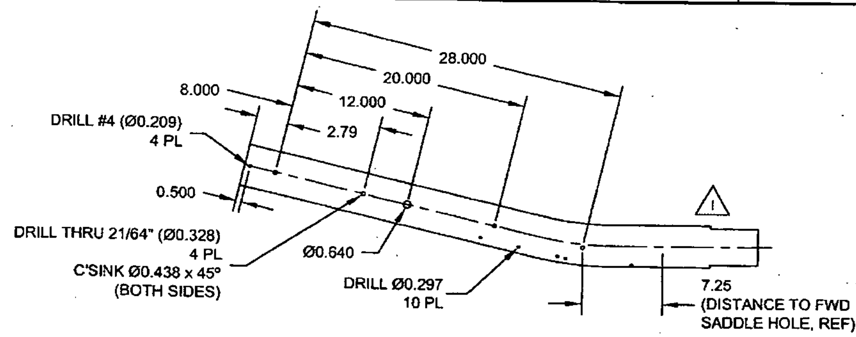
Resolution: ____________ **Disposition:** ____________ **QA: N/C Closed:** ________ **Date:** ________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
			Corrective Action Section B					
DATE	STEP	Description of NC Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Verification Section C	Approval Chief Eng	Approval QC Inspector

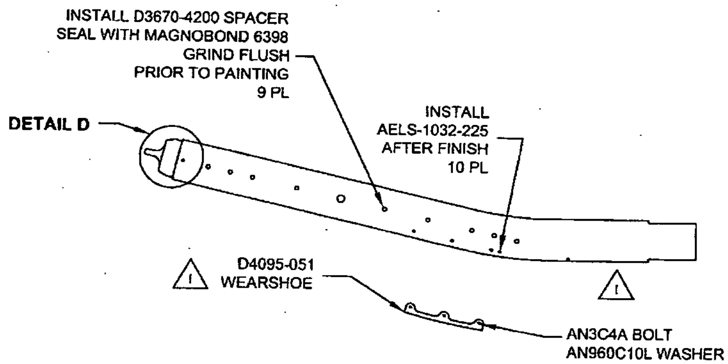
NOTE: Date & initial all entries



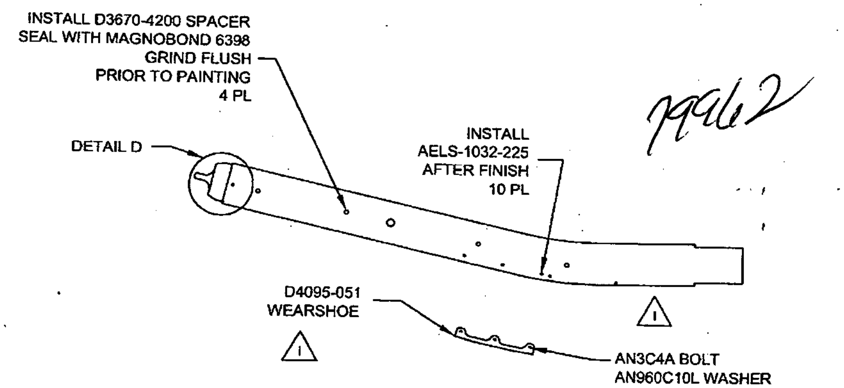
D3391-011 DRILLING DETAIL



D3391-021 DRILLING DETAIL

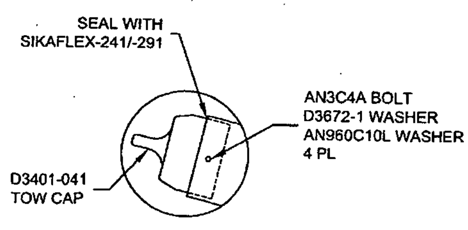


D3391-011 ASSEMBLY DETAIL



D3391-021 ASSEMBLY DETAIL

19962



DETAIL D
SCALE 2X

D3391-011/-021 FWD TUBE ASSEMBLY PARTS LIST

QTY - 011	QTY - 021	PART NUMBER	DESCRIPTION
X		D3391-011	FWD TUBE ASSEMBLY
	X	D3391-021	FWD TUBE ASSEMBLY
1	1	D3401-041	TOW CAP
9	4	D3670-4200	SPACER
4	4	D3672-1	WASHER
1	1	D4095-051	WEARSHOE
1	1	D6013-047	FWD TUBE
10	10	AN3C4A	BOLT
10	10	AN960C10L	WASHER
10	10	AELS-1032-225	INSERT

RELEASED 2011-11-04

DESIGN	PH	**DART AEROSPACE USA, INC** KENT, WA
DRAWN	XDF	DRAWING NO. D3391 — REV. I — SHEET 4 OF 8
CHECKED		
MFG. APPR.		TITLE 412 FLOAT SKIDTUBE — SCALE NTS
APPROVED		
DE APPR.		
DATE	11.10.13	

Dart Aerospace Ltd

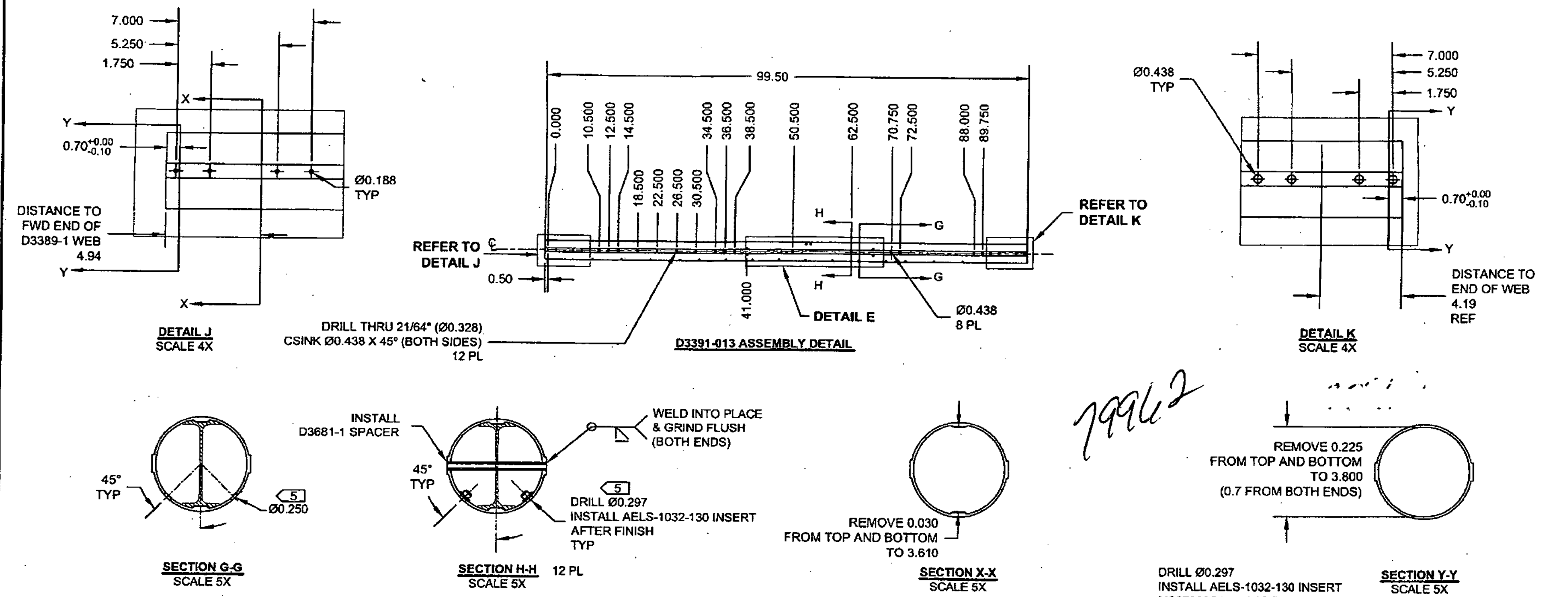
W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

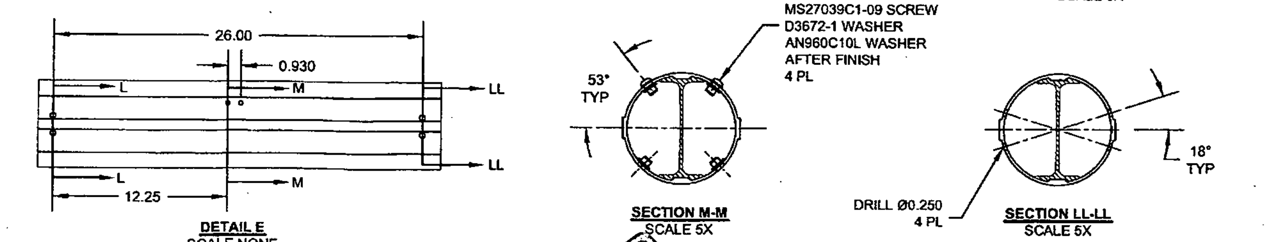
Part No: ____________ **PAR #:** ______ **Fault Category:** ____________ **NCR:** Yes No **DQA:** _____ **Date:** ________

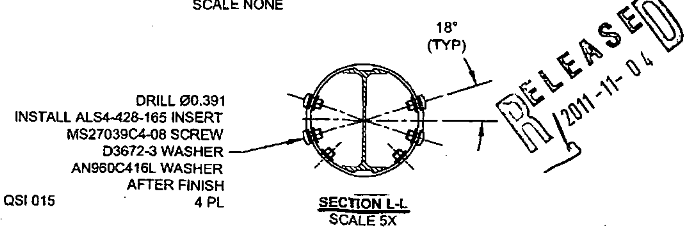
Resolution: ____________ **Disposition:** ____________ **QA: N/C Closed:** ________ **Date:** ________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
			Corrective Action Section B					
DATE	**STEP**	**Description of NC** Section A	**Initial** Chief Eng	**Action Description** Chief Eng	**Sign & Date**	**Verification** Section C	**Approval** Chief Eng	**Approval** QC Inspector

NOTE: Date & initial all entries







D3391-013 MID TUBE ASSEMBLY PARTS LIST

QTY -013	PART NUMBER	DESCRIPTION
X	D3391-013	MID TUBE ASSEMBLY
1	D2500-1-100	EXTRUSION
1	D3389-1	WEB
4	D3672-1	WASHER
4	D3672-3	WASHER
12	D3681-1	SPACER
24	AELS-1032-130	INSERT
4	ALS4-428-165	INSERT
4	AN960C10L	WASHER
4	AN960C416L	WASHER
4	MS27039C1-09	SCREW
4	MS27039C4-08	SCREW

D3391-013 MID TUBE ASSEMBLY

1) MATERIAL: MAKE FROM D2500-1-100 EXTRUSION
2) INSTALL D3389-1 WEB TO OUTER TUBE USING SIKAFLEX-241/-291 PER QSI 015
3) WELDING: PER DART QSI 004

DESIGN	PH	**DART AEROSPACE USA, INC** KENT, WA
DRAWN	XDF	
CHECKED		DRAWING NO. D3391 — REV. I — SHEET 5 OF 8
MFG. APPR.		
APPROVED		TITLE 412 FLOAT SKIDTUBE — SCALE NTS
DE APPR.		
DATE	11.10.13	

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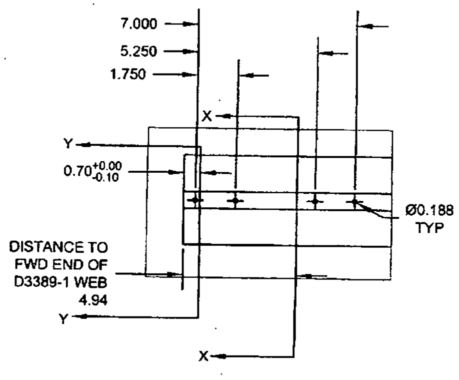
W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

Part No: ____________ **PAR #:** ______ **Fault Category:** ____________ **NCR:** Yes No **DQA:** _____ **Date:** ________

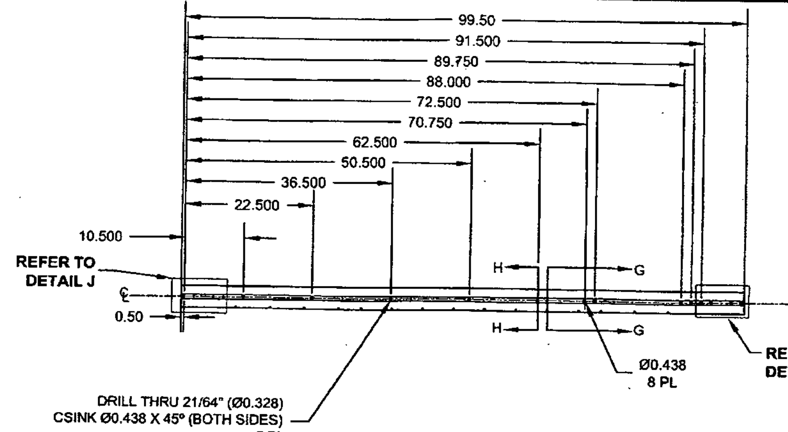
Resolution: ____________ **Disposition:** ____________ **QA: N/C Closed:** ________ **Date:** ________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
			Corrective Action Section B					
DATE	**STEP**	**Description of NC** Section A	**Initial** Chief Eng	**Action Description** Chief Eng	**Sign & Date**	**Verification** Section C	**Approval** Chief Eng	**Approval** QC Inspector

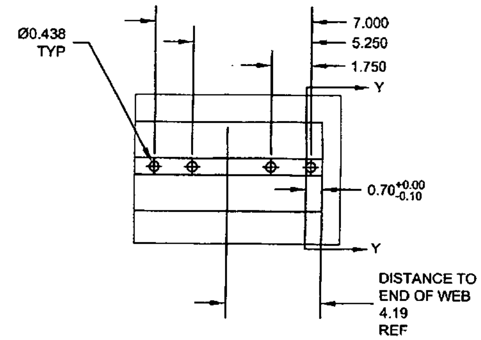
NOTE: Date & initial all entries



DETAIL J
SCALE 4X

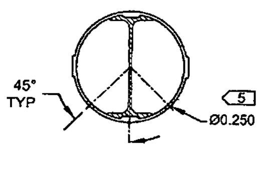


D3391-023 ASSEMBLY DETAIL

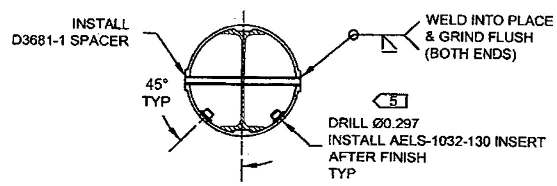


DETAIL K
SCALE 4X

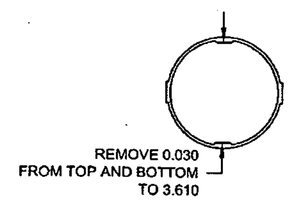
19962



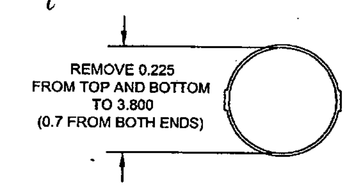
SECTION G-G
SCALE 5X



SECTION H-H
SCALE 5X
5 PL



SECTION X-X
SCALE 5X



SECTION Y-Y
SCALE 5X

RELEASED 2011-11-04

D3391-023 MID TUBE ASSEMBLY PARTS LIST

QTY - 023	PART NUMBER	DESCRIPTION
X	D3391-023	MID TUBE ASSEMBLY
1	D2500-1-100	EXTRUSION
1	D3389-1	WEB
5	D3681-1	SPACER
20	AELS-1032-130	INSERT

D3391-023 MID TUBE ASSEMBLY
1) MATERIAL: MAKE FROM D2500-1-100 EXTRUSION
2) INSTALL D3389-1 WEB TO OUTER TUBE USING SIKAFLEX-241/-291 PER QSI 015
3) WELDING: PER DART QSI 004

DESIGN	PH	DART AEROSPACE USA, INC KENT, WA
DRAWN	XDF	DRAWING NO. D3391 — REV. I — SHEET 6 OF 8
CHECKED		
MFG. APPR.		
APPROVED		TITLE 412 FLOAT SKIDTUBE — SCALE NTS
DE APPR.		
DATE	11.10.13	

Dart Aerospace Ltd

W/O:	WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

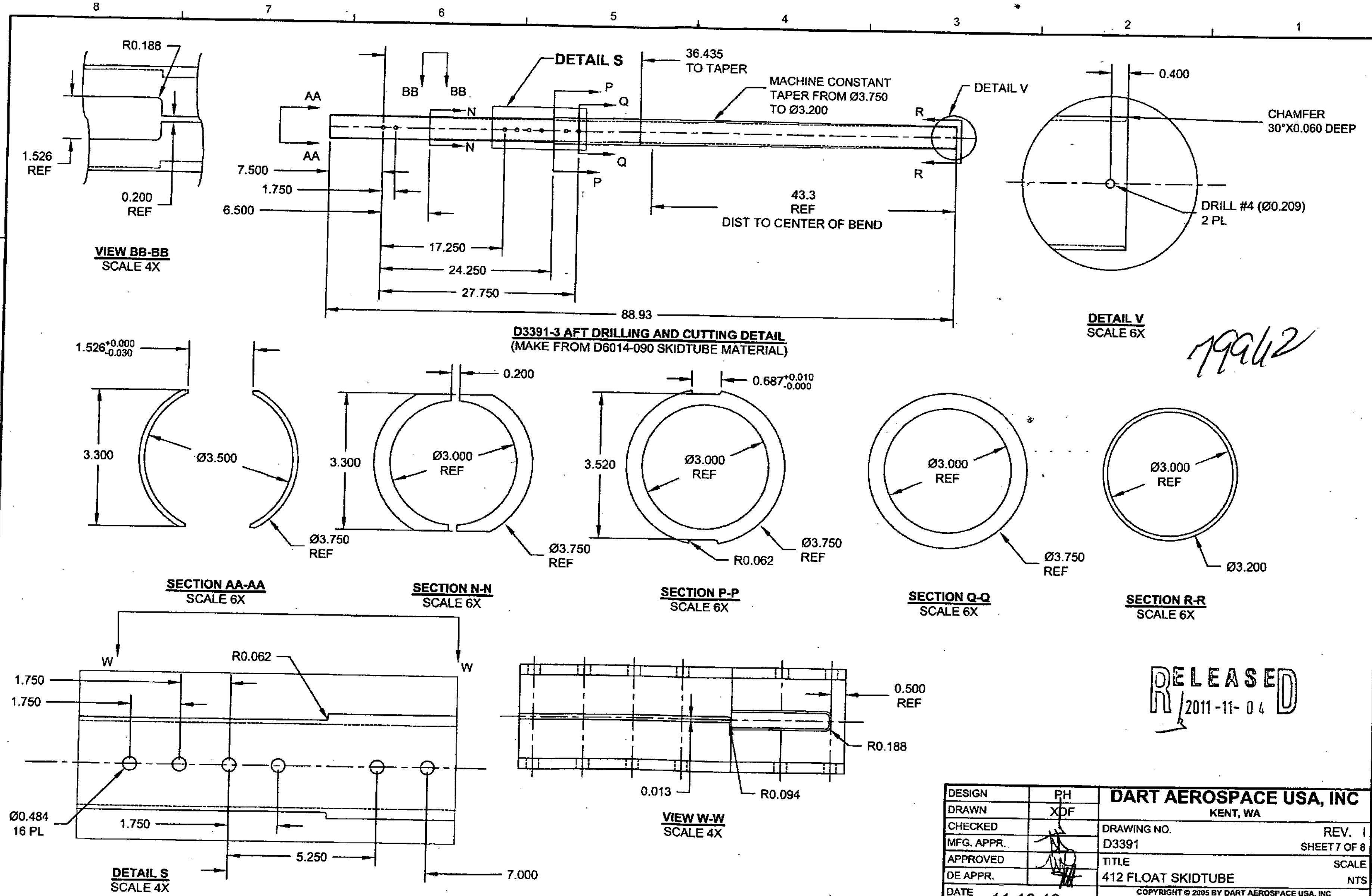
Part No: ________________ **PAR #:** _______ **Fault Category:** ________________ **NCR:** Yes No **DQA:** _____ **Date:** _________

Resolution: ________________ **Disposition:** ________________ **QA: N/C Closed:** __________ **Date:** _________

NCR:	WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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DESIGN	PH	DART AEROSPACE USA, INC KENT, WA	
DRAWN	XDF	DRAWING NO. D3391	REV. I SHEET 7 OF 8
CHECKED			
MFG. APPR.		TITLE	SCALE
APPROVED		412 FLOAT SKIDTUBE	NTS
DE APPR.			
DATE	11.10.13		

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

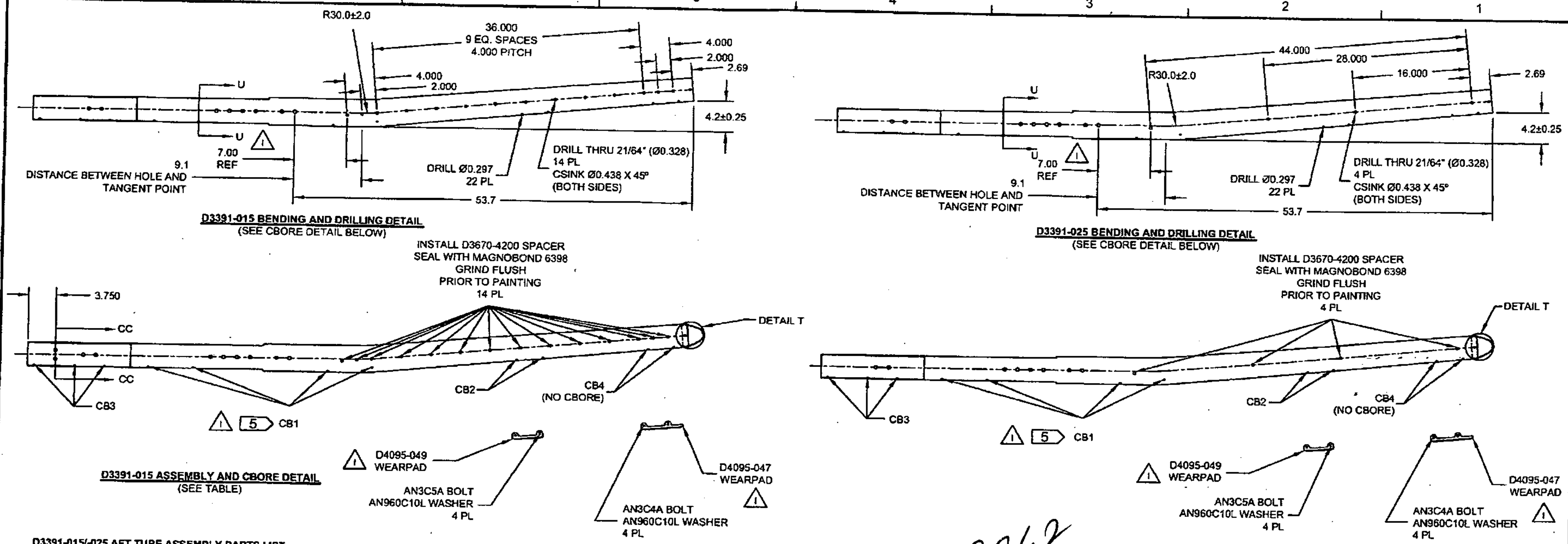
Part No: ____________ PAR #: ______ Fault Category: ____________ NCR: Yes No DQA: _____ Date: ________

Resolution: ____________ Disposition: ____________ QA: N/C Closed: ________ Date: ________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

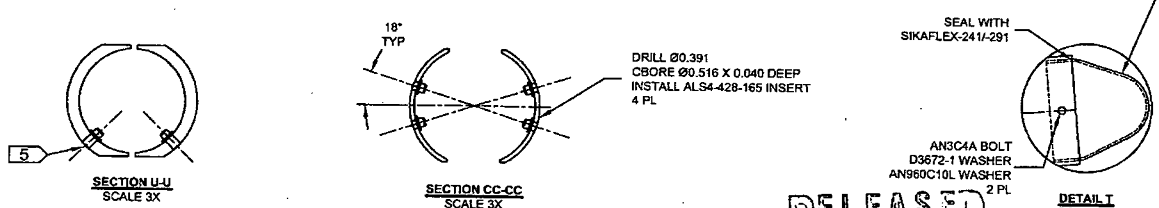
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29962

D3391-015/-025 AFT TUBE ASSEMBLY PARTS LIST

QTY - 015	QTY - 025	PART NUMBER	DESCRIPTION
X		D3391-015	AFT TUBE ASSEMBLY
	X	D3391-025	AFT TUBE ASSEMBLY
1	1	D2646	AFT CAP
14	4	D3670-4200	SPACER
2	2	D3672-1	WASHER
1	1	D4095-049	WEARPAD
1	1	D4095-047	WEARPAD
1	1	D6014-090	AFT TUBE
14	14	AELS-1032-130	INSERT
8	8	AELS-1032-225	INSERT
4		ALS4-428-165	INSERT
6	6	AN3C4A	BOLT
4	4	AN3C5A	BOLT
10	10	AN960C10L	WASHER



RELEASED 2011-11-04

C'BORE HOLES MARKED CB1-CB4 AS FOLLOWS AND INSTALL AELS-1032-XXX AFTER FINISH AS NOTED

HOLES MARKED	QTY D3391-015	QTY D3391-025	CBORE	P/N
CB1	8	8	Ø0.430 X 0.170	AELS-1032-225
CB2	4	4	Ø0.430 X 0.170	AELS-1032-130
CB3	6	6	Ø0.430 X 0.040	AELS-1032-130
CB4	4	4	NONE	AELS-1032-130

DESIGN	PH	**DART AEROSPACE USA, INC** KENT, WA
DRAWN	XDF	
CHECKED		DRAWING NO. D3391 — REV. 1 — SHEET 8 OF 8
MFG. APPR.		
APPROVED		TITLE 412 FLOAT SKIDTUBE — SCALE NTS
DE APPR.		
DATE	11.10.13	

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

Part No: ____________ **PAR #:** ______ **Fault Category:** ____________ **NCR:** Yes No **DQA:** _____ **Date:** ________

Resolution: ____________ **Disposition:** ____________ **QA: N/C Closed:** ________ **Date:** ________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
			Corrective Action Section B					
DATE	**STEP**	**Description of NC** Section A	**Initial** Chief Eng	**Action Description** Chief Eng	**Sign & Date**	**Verification** Section C	**Approval** Chief Eng	**Approval** QC Inspector

NOTE: Date & initial all entries